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SUBJECT: VOLATILE ORGANIC COMPOUND EMISSION ALLOWANCES FOR FIELD FUMIGATIONS IN THE VENTURA NONATTAINMENT AREA DURING MAY 1–OCTOBER 31, 2009 (PURSUANT TO TITLE 3, CALIFORNIA CODE OF REGULATIONS SECTION 6452.3)

Summary

Volatile organic compounds (VOCs) contribute to the formation of ozone, a major air pollutant. Under the federal Clean Air Act, the Department of Pesticide Regulation (DPR) tracks and reduces VOC emissions from pesticides. DPR adopted regulations to control VOC emissions from fumigants during the May 1–October 31 peak ozone season in several ozone nonattainment areas (NAAs). For 2009, DPR has established a field fumigant VOC emission limit of 1,325,000 pounds (average 3.602 tons/day) in the Ventura NAA. This fumigant limit is enforced through emission allowances issued to growers as a condition of their restricted materials permits. DPR received field fumigant emission allowance requests for 2,355,233 pounds of VOCs, approximately 90 percent more emissions than in recent years. Rather than a reflection of a real change in anticipated use, this substantial increase in potential emissions is an artifact of the understanding by the growers that the most equitable allocation would occur if their requests were based on the same product and method, resulting in the same emissions per acre across all requests. This approach is reflected by the fact that the major factor accounting for the increased emissions is the switch from the lower-emission fumigation methods used in recent years to higher-emission methyl bromide-chloropicrin methods (but still permitted by regulations) in all the 2009 requests. The requests exceed the fumigant limit of 1,325,000 pounds by 178 percent. The county agricultural commissioner (CAC) must issue permits with allowances that do not exceed 56.258 percent of the requested amounts to comply the fumigant limit. It is likely that permittees will change the fumigant, and/or application method, and/or application rate to meet the allowances, instead of decreasing acreage.

Background

VOCs contribute to the formation of ozone, a major air pollutant in several regions of California. Under the federal Clean Air Act, California's State Implementation Plan for ozone includes an element to track and reduce VOC emissions from pesticides. DPR regulations control VOC emissions from fumigants during the May 1–October 31 peak ozone season in five ozone NAAs: Sacramento Metro, San Joaquin Valley, Southeast Desert, South Coast, and Ventura.

The regulations apply to all seven field fumigants currently used in California:

- 1,3-dichloropropene (1,3-D) (brand name examples, Telone, Inline)
- Chloropicrin
- Dazomet (Basamid), which produces the VOC methyl isothiocyanate (MITC)
- Metam-sodium (Vapam, Sectagon), which produces MITC
- Methyl bromide
- Potassium N-methyldithiocarbamate, also called metam-potassium (K-Pam), which produces MITC
- Sodium tetrathiocarbonate (Enzone), which produces the VOC carbon disulfide

Field fumigants are major contributors to pesticide VOC emissions in NAAs, so reducing their emissions is an effective means for reducing pesticide VOC emissions. In addition, all field fumigants are restricted materials. Anyone intending to use a restricted material must get a site-specific and time-specific permit from the CAC. The CACs may regulate the local use of restricted materials by conditioning permits. Controlling fumigant emissions using permit conditions provides a precise means to achieve different reductions in different NAAs.

The regulations achieve VOC reductions using two measures: (1) the regulations define specific requirements on how field fumigations must be done, requiring certain low-emission methods in some NAAs and (2) the regulations limit fumigant emissions during May–October within the NAAs. The fumigant limits go into effect only if specific pesticide VOC emission benchmarks are exceeded. Recently revised regulations delay the fumigant limits in all NAAs, except Ventura, until 2011. The Ventura NAA may not meet its benchmark by relying solely on low-emission methods. DPR will ensure that the Ventura NAA meets its benchmark by implementing the fumigant emissions limit specified in the regulations. NOTE: The Ventura NAA consists of all of Ventura County.

DPR tracks pesticide VOC emissions and compliance with the benchmarks and fumigant limits using a methodology that takes into account relevant factors specific to each application. DPR calculates VOC emissions for each pesticide application by multiplying the amount of product applied (application rate and number of acres) by the VOC content (emission potential) of the

product. For fumigants, DPR adjusts these potential emissions based on the percentage of the applied fumigants that volatilize to the air. The amount of product applied is determined from pesticide use reports, required for all agricultural pesticide applications. The emission potential is determined for most products by a laboratory test (thermogravimetric analysis). The percentage of applied fumigants that volatilize to the air (emission rating) is determined from field monitoring data. Barry, et al. (2007) contains a detailed description of this calculation method.

Regulatory Requirements

Title 3, California Code of Regulations (3 CCR) section 6452.2(c) requires DPR to establish a field fumigant VOC emission limit for the Ventura NAA during the May–October 2009 period by subtracting the nonfumigant emissions from the benchmark (fumigant + nonfumigant emissions) of 4.030 average tons/day. DPR has established a fumigant limit of 3.602 average tons/day (1,325,000 pounds) based on the estimate of 2007 nonfumigant emissions of 0.428 average tons/day (Neal, et al. 2009).

As specified in 3 CCR section 6452.3 the fumigant limit is enforced through emission allowances issued to growers. The CACs enforce the emission allowances as conditions included on the restricted materials permit. Emission allowances are the pounds of field fumigants a permittee may emit during the May–October period. DPR determines the amount of each emission allowance based on requests from each permittee. As specified in 3 CCR section 6452.3 a permittee must submit a request to the CAC to obtain a field fumigant emission allowance. The request includes the information needed to calculate the VOC emissions for each fumigation: identification of the fumigant product, the application rate, the number of acres to be treated, and the method of application. DPR compiles all of the requests forwarded by the CACs. DPR computes the VOC emissions associated with the requests, and proportionally reduces each request to ensure that the fumigant limit is not exceeded.

For 2009, the Ventura CAC required permittees to submit all emission allowance requests by March 20, 2009. Ventura CAC staff reviewed the requests for validity, including checking to confirm that allowed fumigation methods were specified, and ensuring that the permittee controls the field for which the emissions were requested. The Ventura CAC sent the last requests to DPR on April 3, 2009. DPR entered all of the requests and computed the emissions as described above, using an Excel spreadsheet.

Evaluation of Field Fumigant Emission Allowance Requests

Attachment 1 lists all of the field fumigant emission allowance requests received by DPR for the Ventura NAA during 2009. A tabulation of key information on the requests is shown below:

- 64 permittees
- 248 fumigations
- 16,689 acres fumigated
- 2,355,233 pounds of VOC emissions (178 percent of 1,325,000-pound limit)

The fumigant VOC emissions requested for 2009 are 91 percent higher than actual emissions computed for 2007 (Table 1). DPR has not yet finalized its estimates of VOC emissions for 2008.

DPR evaluated the fumigant emission allowance requests based on a comparison of the requests to the 2004–2007 VOC emission data, focusing on the five factors that determine VOC emissions:

- Number of fumigations within the NAA during May–October
- Acres treated for each fumigation
- VOC content of the product used for each fumigation
- Emission rating of the fumigation method used for each fumigation
- Product application rate for each fumigation

Number of fumigations and acres treated
The number of permittees requesting an allowance and number of fumigations requested are 38 percent and 55 percent less than 2007, respectively (Table 1). Several reasons may account for the decline, such as consolidation, growers shifting fumigations outside the May–October period, or growers electing to discontinue fumigation altogether. In contrast, the total acres covered by the 2009 requests are 12 percent higher than acres treated in 2007, continuing a trend of increasing fumigated acreage in recent years (Table 1). DPR expected an increase in acreage because permittees were required to submit allowance requests earlier than normal for fumigant planning, forcing permittees to submit requests for fields for which they were unsure would be fumigated in 2009. Moreover, part of the acreage increase is likely due to permittees planning to fumigate in March or April, but requesting an allowance in case weather or other problems force the fumigations into May. The acreage increased for almost all commodities (Table 2). However, part of the acreage increase for individual commodities in 2009 is probably due to a greater number of permits identifying the crops to be fumigated, instead of declaring an unspecified crop. Unspecified crops decreased in acreage.

Fumigant products and fumigation methods
The fumigant product and fumigation method used often depends on the crop to be planted. For example, fumigants are injected at a deeper depth for orchard crops than vegetable crops. Consistent with previous years, most fumigations will be conducted for strawberries (Tables 2 and 3). Even though the crops are consistent, the fumigants and fumigation methods requested for 2009 differ from those used in recent years, as expected. To ensure an equitable reduction for all permittees, the California Strawberry Commission, with DPR's concurrence, assisted growers in submitting similar requests for fumigant product, method of application, and application rate. Dissimilar requests (e.g., some permittees requesting higher application rates and other permittees requesting lower application rates) could cause inequities in any acreage losses since DPR reduces all requests the same proportional amount. All permittees submitted requests for products containing methyl bromide and chloropicrin, and requested the shallow injection tarpaulin method (3 CCR section 6447.3[a][3]; method code 1103). In other words, the requests primarily varied in the number of acres requested (Attachment 1). This differs from 2007 when 26 percent of the acreage used a methyl bromide-chloropicrin product, and the remaining acreage used other products, such as Inline (active ingredients 1,3-D and chloropicrin) and products that generate MITC (Table 4).

Application rate
The average methyl bromide-chloropicrin product application rate requested was 303 pounds/acre. This rate is 8 percent higher than the average 280 pounds/acre application rate used in 2007 for these products (Table 5). Almost all permittees submitted requests to use a product application rate of 300 pounds/acre for a methyl bromide-chloropicrin product. However, 5 permittees submitted requests for 17 methyl bromide-chloropicrin fumigations with application rates of 350–375 pounds/acre.

VOC emission reduction options
The 12 percent increase in acreage and 8 percent increase in methyl bromide-chloropicrin application rate between 2007 and 2009 contribute to the increased emissions represented by the requests. However, the major factor accounting for the increased emissions between the 2009 requests and previous years is the switch from several different fumigants to methyl bromide-chloropicrin. This is a step backward, and it is likely that many permitteess will actually use several different fumigants in 2009 instead of using methyl bromide-chloropicrin, once the CAC issues the emission allowances. Fumigations using methyl bromide-chloropicrin were common in the early 1990s, but growers have increasingly changed to other fumigants due to methyl bromide's phase out under the Montreal Protocol (an international agreement) and DPR's regulatory measures to reduce exposure. In fact, these other regulatory restrictions are almost certain to prevent the exclusive use of methyl bromide products in the Ventura NAA for 2009. The Montreal Protocol specifies limits on production and importation of methyl bromide, so there will likely be an insufficient supply of methyl bromide to fulfill all of the emission allowance requests. In addition, it is almost certain that in several situations the amount of

methyl bromide requested would not comply with DPR's regulation that limits the monthly average methyl bromide exposure to nine parts per billion.

All of the alternative fumigants and application methods commonly used in Ventura have lower emissions than methyl bromide-chloropicrin. Methyl bromide-chloropicrin applied using a shallow injection tarpaulin method at 300 pounds/acre has a VOC emission rate of approximately 140 pounds/acre, depending on the product used. The most commonly used alternatives are chloropicrin-only, 1,3-D, or metam-sodium. All three are usually applied using drip chemigation methods, with average product application rates of 147 to 352 pounds/acre. For these methods and application rates, the VOC emission rates range from 8 to 42 pounds/acre, 70 to 94 percent less than the typical methyl bromide-chloropicrin fumigation.

The alternative fumigants are not effective in all situations. However, it is most likely that permittees will change their fumigant, application method, or application rate to meet the allowances, instead of choosing to use methyl bromide-chloropicrin and thereby having to decrease acreage.

Findings and Recommended Instructions to the County Agricultural Commissioner

DPR received field fumigant emission allowance requests for 2,355,233 pounds of VOCs. The requests exceed the fumigant limit of 1,325,000 pounds by 178 percent. The field fumigant emission allowances must not exceed 56.258 percent of the requested amounts to comply with the field fumigant emission limit.

Attachment 2 lists each permittee by operator identification number or permit number and his/her fumigant VOC emissions requested and the field fumigant emission allowance. The Ventura CAC must issue the allowances that comply with the field fumigant emission limit of 1,325,000 pounds. As specified in 3 CCR section 6452.3(d) the CAC must include the emission allowance as a condition of the restricted materials permit for each permittee listed.

The CAC may transfer emission allowances between permittees at his/her discretion, as long as the total fumigant limit is not exceeded. Staffs from DPR and the Ventura CAC have developed a system to reallocate any unused fumigant allowances. There are several ways in which allowances may remain unused. The Ventura CAC will keep track of fumigant emissions, and allowances will be revoked and returned automatically to the county in the following circumstances:

- Early fumigations–Emissions for field fumigations included on a permittee's allowance request that are completed before May 1.

- Tomato and pepper fumigations–Emissions for any tomato or pepper field included on a permittee's allowance request but not fumigated by July 1, 2009, unless the CAC grants an extension.
- All fumigations completed–Any surplus emissions after a permittee completes fumigation of all the fields included on the allowance request.
- Voluntary returns–Any part of an emission allowance voluntarily returned by a permittee.

In order to comply with his/her allowance, each permittee will need to reduce the application rate, change the fumigation method, reduce the acreage, shift fumigations outside the May–October period, or some combination of the above. The following Web site provides instructions and calculation tools to compute the fumigant VOC emissions for any scenario: <http://www.cdpr.ca.gov/docs/emon/vocs/vocproj/emission.htm>.

For the May–October period, the CAC should establish a system to maintain a running total of VOC emissions for every fumigation as they occur. DPR staff have developed an Excel file (on attached CD-ROM) to assist the CAC with tracking the VOC emissions as well as tracking revoked/returned allowances and any supplemental allowances that may be issued. As specified in 3 CCR section 6452.3(e) the CAC must deny any notice of intent that does not comply with the fumigant emission allowance.

Attachments

cc: Mary-Ann Warmerdam (w/o Attachments)
Polly Frenkel (w/o Attachments)

References

Barry, T., F. Spurlock, and R. Segawa. 2007. Pesticide Volatile Organic Compound Emission Adjustments for Field Conditions and Estimated Volatile Organic Compound Reductions-Revised Estimates. Memorandum to Dr. John S. Sanders, dated September 29, 2007. California Department of Pesticide Regulation.

Neal, R., F. Spurlock, and R. Segawa. 2009. Annual Report on Pesticide Volatile Organic Compound Emissions from Pesticides: 1990 – 2007. California Department of Pesticide Regulation, Report EH 09 – 01.

Table 1. Fumigant use in 2004–2007 and 2009 emission allowance requests for the Ventura NAA during May–October. Data for 2008 not yet available.

	2004	**2005**	**2006**	**2007**	**2009 Requests**
Number of permittees	105	103	104	103	64
Number of permittees with 5 acres or less	17	11	14	12	0
Number of permittees with a single fumigation	31	36	24	28	19
Number of fumigations	421	467	488	549	248
Acres treated	14,284	14,931	16,138	14,857	16,689
Pounds of VOC emissions	1,436,311	1,323,613	1,347,740	1,230,752	2,355,233

Table 2. Acres fumigated in 2004–2007 and 2009 allowance requests by commodity for the Ventura NAA during May–October. Data for 2008 not yet available.

Commodity	**2004 (acres)**	**2005 (acres)**	**2006 (acres)**	**2007 (acres)**	**2009 Requests (acres)**
Flowers	136	92	74	6	307
Lemons	22	174	68	94	10
Peppers	150	389	195	31	1,308
Raspberries	77	247	127	63	1,599
Strawberries	10,721	10,608	10,455	9,245	12,662
Tomatoes	1,055	332	510	100	777
Other crops or unspecified	2,123	3,089	4,709	5,318	26
TOTAL	14,284	14,931	16,138	14,857	16,689

Table 3. Amount of fumigant products applied in 2004–2007 and 2009 allowance requests by commodity for the Ventura NAA during May–October. Data for 2008 not yet available.

Commodity	**2004 (percent of pounds applied)**	**2005 (percent of pounds applied)**	**2006 (percent of pounds applied)**	**2007 (percent of pounds applied)**	**2009 Requests (percent of pounds applied)**
Flowers	<1	<1	<1	<1	2
Lemons	<1	<1	<1	1	<1
Peppers	1	1	1	<1	8
Raspberries	1	2	1	<1	10
Strawberries	77	74	68	62	76
Tomatoes	4	1	1	1	4
Other crops or unspecified	16	21	28	36	<1

Table 4. Fumigant products used in 2004–2007 and requested for 2009 for the Ventura NAA during May–October. Data for 2008 not yet available.

Fumigant	2004 (acres)	2005 (acres)	2006 (acres)	2007 (acres)	2009 Requests (acres)
Methyl bromide-chloropicrin mix products	6,601	4,731	4,886	3,916	16,689
1,3-D products	3,474	5,289	5,820	5,069	0
Chloropicrin-only products	2,097	2,622	2,977	3,607	0
MITC-generating products	2,109	2,127	2,177	2,171	0
Enzone	3	163	276	94	0
TOTAL	14,284	14,931	16,138	14,857	16,689

Table 5. Average product application rates for typical products used in 2004–2007 and requested for 2009 in the Ventura NAA during May–October. Data for 2008 not yet available.

Fumigant	2004 (lbs/acre)	2005 (lbs/acre)	2006 (lbs/acre)	2007 (lbs/acre)	2009 Requests (lbs/acre)
Methyl bromide-chloropicrin mix products	278	269	275	280	303
1,3-D products	276	268	267	267	No requests
Chloropicrin-only products	178	156	115	147	No requests
MITC-generating products	336	382	362	352	No requests
Enzone	2	100	29	122	No requests

Attachment 1 - Field Fumigant Allowance Requests and Reductions for the Ventura NAA, May-October 2009

DPR calculated the information highlighted. All other information provided by permittees.

Operator ID-Permit Number	Site Location ID	Commodity	Product Name	Registration Number	Fumigation Method	Treated Acres	Product Application Rate (lbs/ac)	Requested Product Amount (lbs)	VOC Emission Rate (lbs/acre)	VOC Emissions (lbs)	56.258% of Request
56-09-27F022A	3	Peppers	MBC-33 SOIL FUMIGANT	8853-3	1103	114.1	300	34,230	140	15,979	8,989
56-09-27F022A	4	Peppers	MBC-33 SOIL FUMIGANT	8853-3	1103	80	300	24,000	140	11,203	6,303
56-09-27F022A	8	Peppers	MBC-33 SOIL FUMIGANT	8853-3	1103	124	300	37,200	140	17,365	9,769
56-09-27F022A	9	Peppers	MBC-33 SOIL FUMIGANT	8853-3	1103	186	300	55,800	140	26,047	14,654
56-09-27X0288	1	Strawberries	TRI-CON 67/33	11220-7	1103	172	300	51,600	140	24,019	13,512
56-09-27X0288	1	Strawberries	TRI-CON 67/33	11220-7	1103	283	300	84,900	140	39,519	22,233
56-09-3000917	5	Tomato	TRI-CON 50/50	11220-10	1103	192	300	57,600	138	26,496	14,906
56-09-3000917	10	Tomato	TRI-CON 50/50	11220-10	1103	115	300	34,500	138	15,870	8,928
56-09-33O5000	1	Peppers	MBC-33 SOIL FUMIGANT	8853-3	1103	25	300	7,500	140	3,501	1,970
56-09-56C0052	130	Lemons	METHYL BROMIDE 98%	8536-19	1103	10	300	3,000	141	1,411	794
56-09-56C0345	3	Cut Flowers	MBC-33 SOIL FUMIGANT	8853-3	1103	8	300	2,400	140	1,120	630
56-09-56C0346	2	Cut Flowers	MBC-33 SOIL FUMIGANT	8853-3	1103	10	350	3,500	163	1,634	919
56-09-56C0346	6	Cut Flowers	MBC-33 SOIL FUMIGANT	8853-3	1103	30	350	10,500	163	4,901	2,757
56-09-56C0484	12	Raspberries	80-20	8622-44	1103	19	300	5,700	142	2,690	1,514
56-09-56C0484	14	Raspberries	80-20	8622-44	1103	38	300	11,400	142	5,381	3,027
56-09-56C0484	16	Strawberries	80-20	8622-44	1103	77	300	23,100	142	10,903	6,134
56-09-56C0484	19	Strawberries	80-20	8622-44	1103	45	300	13,500	142	6,372	3,585
56-09-56C0484	26	Strawberries	80-20	8622-44	1103	100	300	30,000	142	14,160	7,966
56-09-56C0484	35	Strawberries	80-20	8622-44	1103	53	300	15,900	142	7,505	4,222
56-09-56C0484	36	Raspberries	80-20	8622-44	1103	120	300	36,000	142	16,992	9,559
56-09-56C0484	37	Raspberries	80-20	8622-44	1103	10	300	3,000	142	1,416	797
56-09-56C0484	38	Strawberries	80-20	8622-44	1103	60	300	18,000	142	8,496	4,780
56-09-56C0511	5	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	32	300	9,600	140	4,481	2,521
56-09-56C0525	6	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	24	300	7,200	140	3,361	1,891
56-09-56C0527	27	Strawberries	TRI-CON 67/33	11220-7	1103	57	300	17,100	140	7,960	4,478
56-09-56C0567	1	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	70	300	21,000	140	9,803	5,515
56-09-56C0567	3	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	36	300	10,800	140	5,041	2,836
56-09-56C0599	2	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	65	300	19,500	140	9,103	5,121
56-09-56C0599	5	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	157	300	47,100	140	21,986	12,369
56-09-56C0599	6	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	88	300	26,400	140	12,324	6,933
56-09-56C0599	10	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	50	300	15,000	140	7,002	3,939
56-09-56C0599	12	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	85	300	25,500	140	11,903	6,697
56-09-56C0664	6	Strawberries	METHYL BROMIDE	5785-51	1103	40	350	14,000	168	6,720	3,781
56-09-56C0664	11	Strawberries	METHYL BROMIDE	5785-51	1103	41	350	14,350	168	6,888	3,875
56-09-56C0664	12	Strawberries	METHYL BROMIDE	5785-51	1103	80	350	28,000	168	13,440	7,561
56-09-56C0664	14	Strawberries	METHYL BROMIDE	5785-51	1103	25	350	8,750	168	4,200	2,363
56-09-56C0664	15	Strawberries	METHYL BROMIDE	5785-51	1103	22.5	350	7,875	168	3,780	2,127
56-09-56C0664	16	Strawberries	METHYL BROMIDE	5785-51	1103	45	350	15,750	168	7,560	4,253

Attachment 1 - Field Fumigant Allowance Requests and Reductions for the Ventura NAA, May-October 2009

DPR calculated the information highlighted. All other information provided by permittees.

Operator ID-Permit Number	Site Location ID	Commodity	Product Name	Registration Number	Fumigation Method	Treated Acres	Product Application Rate (lbs/ac)	Requested Product Amount (lbs)	VOC Emission Rate (lbs/acre)	VOC Emissions (lbs)	56.258% of Request
56-09-56C0664	17	Strawberries	METHYL BROMIDE	5785-51	1103	65	350	22,750	168	10,920	6,143
56-09-56C0664	18	Strawberries	METHYL BROMIDE	5785-51	1103	50	350	17,500	168	8,400	4,726
56-09-56C0678	3	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	41	300	12,300	140	5,742	3,230
56-09-56C0678	6	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	53	300	15,900	140	7,422	4,176
56-09-56C0679	4	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	32	300	9,600	140	4,481	2,521
56-09-56C0679	5	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	41	300	12,300	140	5,742	3,230
56-09-56C0710	1	Strawberries	TERR-O-GAS 75	5785-40	1103	133	300	39,900	141	18,753	10,550
56-09-56C0710	5	Strawberries	TERR-O-GAS 75	5785-40	1103	32	300	9,600	141	4,512	2,538
56-09-56C0710	6	Strawberries	TERR-O-GAS 75	5785-40	1103	65	300	19,500	141	9,165	5,156
56-09-56C0772	6	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	12	300	3,600	140	1,680	945
56-09-56C0791	2	Strawberries	PIC-BROM 25	8536-11	1103	7	350	2,450	165	1,152	648
56-09-56C0791	3	Strawberries	PIC-BROM 25	8536-11	1103	6	350	2,100	165	987	555
56-09-56C0791	3	Strawberries	PIC-BROM 25	8536-11	1103	8	350	2,800	165	1,316	740
56-09-56C0848	7	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	34	300	10,200	140	4,761	2,679
56-09-56C0848	10	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	40	300	12,000	140	5,602	3,151
56-09-56C0853	2	Strawberries	TERR-O-GAS 75	5785-40	1103	100	300	30,000	141	14,100	7,932
56-09-56C0853	3	Strawberries	TERR-O-GAS 75	5785-40	1103	24	300	7,200	141	3,384	1,904
56-09-56C0879	3	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	35	300	10,500	140	4,901	2,757
56-09-56C0879	4	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	36	300	10,800	140	5,041	2,836
56-09-56C0879	5	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	24	300	7,200	140	3,361	1,891
56-09-56C0879	6	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	47	300	14,100	140	6,582	3,703
56-09-56C0879	7	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	40	300	12,000	140	5,602	3,151
56-09-56C0879	8	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	150	300	45,000	140	21,006	11,817
56-09-56C0918	1	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	18	300	5,400	140	2,521	1,418
56-09-56C0938	4	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	90	300	27,000	140	12,604	7,090
56-09-56C0947	2	Strawberries	TERR-O-GAS 75	5785-40	1103	18	300	5,400	141	2,538	1,428
56-09-56C0947	3	Strawberries	TERR-O-GAS 75	5785-40	1103	22	300	6,600	141	3,102	1,745
56-09-56C0947	4	Strawberries	TERR-O-GAS 75	5785-40	1103	10	300	3,000	141	1,410	793
56-09-56C0947	5	Strawberries	TERR-O-GAS 75	5785-40	1103	4.3	300	1,290	141	606	341
56-09-56C0947	6	Strawberries	TERR-O-GAS 75	5785-40	1103	6	300	1,800	141	846	476
56-09-56C0950	1	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	60	300	18,000	140	8,402	4,727
56-09-56C0950	2	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	35	300	10,500	140	4,901	2,757
56-09-56C0975	2	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	32	300	9,600	140	4,481	2,521
56-09-56P1645	1	Strawberries	METHYL BROMIDE 100	15298-4	1103	35	300	10,500	144	5,040	2,835
56-09-56P1645	2	Strawberries	METHYL BROMIDE 100	15298-4	1103	85	300	25,500	144	12,240	6,886
56-09-56P1645	4	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	146	300	43,800	140	20,446	11,502
56-09-56P1661	1	Cut Flowers	PIC-BROM 25	8536-11	1103	40	300	12,000	141	5,640	3,173
56-09-56P1789	2	Strawberries	TERR-O-GAS 75	5785-40	1103	120	300	36,000	141	16,920	9,519

Attachment 1 - Field Fumigant Allowance Requests and Reductions for the Ventura NAA, May-October 2009

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Operator ID-Permit Number	Site Location ID	Commodity	Product Name	Registration Number	Fumigation Method	Treated Acres	Product Application Rate (lbs/ac)	Requested Product Amount (lbs)	VOC Emission Rate (lbs/acre)	VOC Emissions (lbs)	56.258% of Request
56-09-56P1789	3	Strawberries	TERR-O-GAS 75	5785-40	1103	342	300	102,600	141	48,222	27,129
56-09-56P1789	4	Strawberries	TERR-O-GAS 75	5785-40	1103	22	300	6,600	141	3,102	1,745
56-09-56P1789	5	Strawberries	TERR-O-GAS 75	5785-40	1103	89	300	26,700	141	12,549	7,060
56-09-56P1789	6	Strawberries	TERR-O-GAS 75	5785-40	1103	115	300	34,500	141	16,215	9,122
56-09-56P1789	7	Strawberries	TERR-O-GAS 75	5785-40	1103	85	300	25,500	141	11,985	6,742
56-09-56P1789	8	Strawberries	TERR-O-GAS 75	5785-40	1103	292	300	87,600	141	41,172	23,162
56-09-56P1789	9	Strawberries	TERR-O-GAS 75	5785-40	1103	310	300	93,000	141	43,710	24,590
56-09-56P1789	10	Strawberries	TERR-O-GAS 75	5785-40	1103	181	300	54,300	141	25,521	14,358
56-09-56P1789	11	Strawberries	TERR-O-GAS 75	5785-40	1103	242	300	72,600	141	34,122	19,196
56-09-56P1789	12	Strawberries	TERR-O-GAS 75	5785-40	1103	43	300	12,900	141	6,063	3,411
56-09-56P1789	13	Strawberries	TERR-O-GAS 75	5785-40	1103	115	300	34,500	141	16,215	9,122
56-09-56P1789	14	Strawberries	TERR-O-GAS 75	5785-40	1103	35	300	10,500	141	4,935	2,776
56-09-56P1789	18	Strawberries	TERR-O-GAS 75	5785-40	1103	100	300	30,000	141	14,100	7,932
56-09-56P1789	19	Strawberries	TERR-O-GAS 75	5785-40	1103	72	300	21,600	141	10,152	5,711
56-09-56P1789	20	Strawberries	TERR-O-GAS 75	5785-40	1103	94	300	28,200	141	13,254	7,456
56-09-56P1789	21	Strawberries	TERR-O-GAS 75	5785-40	1103	80	300	24,000	141	11,280	6,346
56-09-56P1789	22	Strawberries	TERR-O-GAS 75	5785-40	1103	60	300	18,000	141	8,460	4,759
56-09-56P1789	23	Strawberries	TERR-O-GAS 75	5785-40	1103	120	300	36,000	141	16,920	9,519
56-09-56P1789	24	Strawberries	TERR-O-GAS 75	5785-40	1103	23	300	6,900	141	3,243	1,824
56-09-56P1789	25	Strawberries	TERR-O-GAS 75	5785-40	1103	20	300	6,000	141	2,820	1,586
56-09-56P1789	26	Strawberries	TERR-O-GAS 75	5785-40	1103	33	300	9,900	141	4,653	2,618
56-09-56P1789	27	Strawberries	TERR-O-GAS 75	5785-40	1103	120	300	36,000	141	16,920	9,519
56-09-56P1789	28	Strawberries	TERR-O-GAS 75	5785-40	1103	15	300	4,500	141	2,115	1,190
56-09-56P1789	29	Strawberries	TERR-O-GAS 75	5785-40	1103	88	300	26,400	141	12,408	6,980
56-09-56P1789	30	Strawberries	TERR-O-GAS 75	5785-40	1103	60	300	18,000	141	8,460	4,759
56-09-56P1789	32	Strawberries	TERR-O-GAS 75	5785-40	1103	10.5	300	3,150	141	1,481	833
56-09-56P1789	33	Strawberries	TERR-O-GAS 75	5785-40	1103	182	300	54,600	141	25,662	14,437
56-09-56P1883	2	Strawberries	PIC-BROM 25	8536-11	1103	59	300	17,700	141	8,319	4,680
56-09-56P1887	7	Strawberries	TERR-O-GAS 75	5785-40	1103	130	300	39,000	141	18,330	10,312
56-09-56P1887	9	Strawberries	TERR-O-GAS 75	5785-40	1103	42	300	12,600	141	5,922	3,332
56-09-56P1887	11	Strawberries	TERR-O-GAS 75	5785-40	1103	127	300	38,100	141	17,907	10,074
56-09-56P1887	12	Strawberries	TERR-O-GAS 75	5785-40	1103	28	300	8,400	141	3,948	2,221
56-09-56P1887	13	Strawberries	TERR-O-GAS 75	5785-40	1103	30	300	9,000	141	4,230	2,380
56-09-56P1887	14	Strawberries	TERR-O-GAS 75	5785-40	1103	80	300	24,000	141	11,280	6,346
56-09-56P1887	15	Strawberries	TERR-O-GAS 75	5785-40	1103	55	300	16,500	141	7,755	4,363
56-09-56P1888	1	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	22	300	6,600	140	3,081	1,733
56-09-56P1895	2	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	8	300	2,400	140	1,120	630
56-09-56P1927	1	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	8	300	2,400	140	1,120	630

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56-09-56P1927	2	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	10	300	3,000	140	1,400	788
56-09-56P1927	3	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	8	300	2,400	140	1,120	630
56-09-56P1944	1	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	46	300	13,800	140	6,442	3,624
56-09-56P1944	5	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	26	300	7,800	140	3,641	2,048
56-09-56P1955	1	Raspberries	TERR-O-GAS 75	5785-40	1103	78	300	23,400	141	10,998	6,187
56-09-56P1955	2	Raspberries	TERR-O-GAS 75	5785-40	1103	35	300	10,500	141	4,935	2,776
56-09-56P1955	3	Raspberries	TERR-O-GAS 75	5785-40	1103	150	300	45,000	141	21,150	11,899
56-09-56P1955	3	Raspberries	TERR-O-GAS 75	5785-40	1103	40	300	12,000	141	5,640	3,173
56-09-56P1955	4	Raspberries	TERR-O-GAS 75	5785-40	1103	110	300	33,000	141	15,510	8,726
56-09-56P1955	6	Raspberries	TERR-O-GAS 75	5785-40	1103	25	300	7,500	141	3,525	1,983
56-09-56P1955	8	Raspberries	TERR-O-GAS 75	5785-40	1103	80	300	24,000	141	11,280	6,346
56-09-56P1955	9	Raspberries	TERR-O-GAS 75	5785-40	1103	105	300	31,500	141	14,805	8,329
56-09-56P1955	13	Raspberries	TERR-O-GAS 75	5785-40	1103	40	300	12,000	141	5,640	3,173
56-09-56P1955	14	Raspberries	TERR-O-GAS 75	5785-40	1103	36	300	10,800	141	5,076	2,856
56-09-56P1955	16	Raspberries	TERR-O-GAS 75	5785-40	1103	55	300	16,500	141	7,755	4,363
56-09-56P1955	17	Raspberries	TERR-O-GAS 75	5785-40	1103	59	300	17,700	141	8,319	4,680
56-09-56P1955	18	Raspberries	TERR-O-GAS 75	5785-40	1103	140	300	42,000	141	19,740	11,105
56-09-56P1955	21	Raspberries	TERR-O-GAS 75	5785-40	1103	102	300	30,600	141	14,382	8,091
56-09-56P1955	22	Raspberries	TERR-O-GAS 75	5785-40	1103	80	300	24,000	141	11,280	6,346
56-09-56P1955	23	Raspberries	TERR-O-GAS 75	5785-40	1103	27	300	8,100	141	3,807	2,142
56-09-56P1955	24	Raspberries	TERR-O-GAS 75	5785-40	1103	14	300	4,200	141	1,974	1,111
56-09-56X0002	5	Tomato	TRI-CON 75/25	11220-8	1103	107	300	32,100	141	15,059	8,472
56-09-56X0002	5	Strawberries	TRI-CON 75/25	11220-8	1103	50	300	15,000	141	7,037	3,959
56-09-56X0002	12	Tomato	TRI-CON 75/25	11220-8	1103	94	300	28,200	141	13,229	7,442
56-09-56X0002	28	Tomato	TRI-CON 75/25	11220-8	1103	43	300	12,900	141	6,052	3,405
56-09-56X0002	29	Tomato	TRI-CON 75/25	11220-8	1103	91	300	27,300	141	12,807	7,205
56-09-56X0003	2	Raspberries	PIC-BROM 25	8536-11	1103	20	350	7,000	165	3,290	1,851
56-09-56X0003	2	Strawberries	PIC-BROM 25	8536-11	1103	33	350	11,550	165	5,429	3,054
56-09-56X0004	30	Strawberries	TERR-O-GAS 75	5785-40	1103	100	300	30,000	141	14,100	7,932
56-09-56X0004	38	Strawberries	TERR-O-GAS 75	5785-40	1103	100	300	30,000	141	14,100	7,932
56-09-56X0007	3	Strawberries	67-33	5785-52	1107	130	300	39,000	140	18,205	10,242
56-09-56X0007	5	Strawberries	67-33	5785-52	1103	82	300	24,600	140	11,483	6,460
56-09-56X0007	5	Peppers	67-33	5785-52	1103	48	300	14,400	140	6,722	3,782
56-09-56X0007	12	Strawberries	67-33	5785-52	1103	78	300	23,400	140	10,923	6,145
56-09-56X0007	24	Strawberries	67-33	5785-52	1103	24	300	7,200	140	3,361	1,891
56-09-56X0007	28	Peppers	67-33	5785-52	1103	50	300	15,000	140	7,002	3,939
56-09-56X0007	29	Peppers	67-33	5785-52	1103	12	300	3,600	140	1,680	945
56-09-56X0007	30	Strawberries	67-33	5785-52	1103	13	300	3,900	140	1,821	1,024

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56-09-56X0007	31	Peppers	67-33	5785-52	1103	85	300	25,500	140	11,903	6,697
56-09-56X0011	2	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	38	300	11,400	140	5,322	2,994
56-09-56X0011	4	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	54	300	16,200	140	7,562	4,254
56-09-56X0011	5	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	12	300	3,600	140	1,680	945
56-09-56X0020	2	Strawberries	TERR-O-GAS 75	5785-40	1103	248	300	74,400	141	34,968	19,672
56-09-56X0026	3	Strawberries	PIC-BROM 25	8536-11	1103	85	300	25,500	141	11,985	6,742
56-09-56X0026	5	Strawberries	PIC-BROM 25	8536-11	1103	110	300	33,000	141	15,510	8,726
56-09-56X0026	9	Strawberries	PIC-BROM 25	8536-11	1103	100	300	30,000	141	14,100	7,932
56-09-56X0031	1	Cut Flowers	MBC-33 SOIL FUMIGANT	8853-3	1103	2	275	550	128	257	144
56-09-56X0031	2	Cut Flowers	MBC-33 SOIL FUMIGANT	8853-3	1103	22	275	6,050	128	2,824	1,589
56-09-56X0047	4	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	45	300	13,500	140	6,302	3,545
56-09-56X0047	5	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	94	300	28,200	140	13,164	7,406
56-09-56X0047	13	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	105	300	31,500	140	14,704	8,272
56-09-56X0047	14	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	151	300	45,300	140	21,146	11,896
56-09-56X0047	25	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	115	300	34,500	140	16,105	9,060
56-09-56X0047	26	Tomato	MBC-33 SOIL FUMIGANT	8853-3	1103	135	300	40,500	140	18,905	10,636
56-09-56X0047	34	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	90	300	27,000	140	12,604	7,090
56-09-56X0047	35	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	50	300	15,000	140	7,002	3,939
56-09-56X0047	36	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	88	300	26,400	140	12,324	6,933
56-09-56X0047	38	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	98	300	29,400	140	13,724	7,721
56-09-56X0048	1	Strawberries	TERR-O-GAS 75	5785-40	1103	145	300	43,500	141	20,445	11,502
56-09-56X0048	2	Strawberries	TERR-O-GAS 75	5785-40	1103	118	300	35,400	141	16,638	9,360
56-09-56X0048	3	Strawberries	TERR-O-GAS 75	5785-40	1103	40	300	12,000	141	5,640	3,173
56-09-56X0048	4	Strawberries	TERR-O-GAS 75	5785-40	1103	176	300	52,800	141	24,816	13,961
56-09-56X0048	5	Strawberries	TERR-O-GAS 75	5785-40	1103	113	300	33,900	141	15,933	8,964
56-09-56X0048	8	Strawberries	TERR-O-GAS 75	5785-40	1103	243	300	72,900	141	34,263	19,276
56-09-56X0048	9	Strawberries	TERR-O-GAS 75	5785-40	1103	118	300	35,400	141	16,638	9,360
56-09-56X0050	2	Cut Flowers	MBC-33 SOIL FUMIGANT	8853-3	1103	18	300	5,400	140	2,521	1,418
56-09-56X0050	4	Cut Flowers	MBC-33 SOIL FUMIGANT	8853-3	1103	64	300	19,200	140	8,963	5,042
56-09-56X0050	5	Cut Flowers	MBC-33 SOIL FUMIGANT	8853-3	1103	21	300	6,300	140	2,941	1,654
56-09-56X0052	2	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	152	300	45,600	140	21,286	11,975
56-09-56X0071	1	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	10	300	3,000	140	1,400	788
56-09-56X0071	2	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	4	300	1,200	140	560	315
56-09-56X0071	3	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	6	300	1,800	140	840	473
56-09-56X0073	3	Peppers	METHYL BROMIDE 100	15298-4	1107	36	300	10,800	144	5,184	2,916
56-09-56X0073	4	Peppers	METHYL BROMIDE 100	15298-4	1107	46	300	13,800	144	6,624	3,727
56-09-56X0073	19	Peppers	METHYL BROMIDE 100	15298-4	1107	50	300	15,000	144	7,200	4,051
56-09-56X0073	27	Peppers	METHYL BROMIDE 100	15298-4	1107	50	300	15,000	144	7,200	4,051

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56-09-56X0073	28	Peppers	METHYL BROMIDE 100	15298-4	1107	125	300	37,500	144	18,000	10,126
56-09-56X0073	30	Peppers	METHYL BROMIDE 100	15298-4	1107	50	300	15,000	144	7,200	4,051
56-09-56X0073	35	Peppers	METHYL BROMIDE 100	15298-4	1107	59	300	17,700	144	8,496	4,780
56-09-56X0073	37	Peppers	METHYL BROMIDE 100	15298-4	1107	60	300	18,000	144	8,640	4,861
56-09-56X0073	38	Peppers	METHYL BROMIDE 100	15298-4	1107	34	300	10,200	144	4,896	2,754
56-09-56X0073	41	Peppers	METHYL BROMIDE 100	15298-4	1107	19	300	5,700	144	2,736	1,539
56-09-56X0076	1	Sod	PIC-BROM 25	8536-11	1103	8	300	2,400	141	1,128	635
56-09-56X0076	2	Sod	PIC-BROM 25	8536-11	1103	8	300	2,400	141	1,128	635
56-09-56X0076	4	Sod	PIC-BROM 25	8536-11	1103	5	300	1,500	141	705	397
56-09-56X0076	9	Sod	PIC-BROM 25	8536-11	1103	5	300	1,500	141	705	397
56-09-56X0082	1	Raspberries	METHYL BROMIDE 98%	8536-19	1103	11	300	3,300	141	1,552	873
56-09-56X0082	4	Strawberries	METHYL BROMIDE 98%	8536-19	1103	90	300	27,000	141	12,701	7,145
56-09-56X0082	8	Raspberries	METHYL BROMIDE 98%	8536-19	1103	68	300	20,400	141	9,596	5,399
56-09-56X0082	11	Strawberries	METHYL BROMIDE 98%	8536-19	1103	81	300	24,300	141	11,431	6,431
56-09-56X0082	15	Raspberries	METHYL BROMIDE 98%	8536-19	1103	85	300	25,500	141	11,995	6,748
56-09-56X0082	23	Strawberries	METHYL BROMIDE 98%	8536-19	1103	96	300	28,800	141	13,548	7,622
56-09-56X0082	27	Strawberries	METHYL BROMIDE 98%	8536-19	1103	43	300	12,900	141	6,068	3,414
56-09-56X0082	30	Raspberries	METHYL BROMIDE 98%	8536-19	1103	21	300	6,300	141	2,964	1,667
56-09-56X0082	33	Raspberries	METHYL BROMIDE 98%	8536-19	1103	31	300	9,300	141	4,375	2,461
56-09-56X0082	37	Strawberries	METHYL BROMIDE 98%	8536-19	1103	71	300	21,300	141	10,020	5,637
56-09-56X0093	1	Cut Flowers	PIC-BROM 25	8536-11	1103	5.7	300	1,710	141	804	452
56-09-56X0093	3	Cut Flowers	PIC-BROM 25	8536-11	1103	48	300	14,400	141	6,768	3,808
56-09-56X0183	1	Strawberries	BROM-76	8536-1	1103	65	300	19,500	109	7,106	3,998
56-09-56X0183	2	Strawberries	BROM-76	8536-1	1103	36	300	10,800	109	3,936	2,214
56-09-56X0183	2	Peppers	BROM-76	8536-1	1103	15	300	4,500	109	1,640	923
56-09-56X0183	3	Strawberries	BROM-76	8536-1	1103	25	300	7,500	109	2,733	1,538
56-09-56X0183	3	Peppers	BROM-76	8536-1	1103	40	300	12,000	109	4,373	2,460
56-09-56X0183	5	Strawberries	BROM-76	8536-1	1103	70	300	21,000	109	7,652	4,305
56-09-56X0193	2	Cut Flowers	MBC-33 SOIL FUMIGANT	8853-3	1103	13	375	4,875	175	2,276	1,280
56-09-56X0193	4	Cut Flowers	MBC-33 SOIL FUMIGANT	8853-3	1103	25	375	9,375	175	4,376	2,462
56-09-56X0195	11	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	32	300	9,600	140	4,481	2,521
56-09-56X0195	19	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	48	300	14,400	140	6,722	3,782
56-09-56X0195	21	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	72	300	21,600	140	10,083	5,672
56-09-56X0209	1	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	45	300	13,500	140	6,302	3,545
56-09-56X0209	2	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	50	300	15,000	140	7,002	3,939
56-09-56X0209	3	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	26	300	7,800	140	3,641	2,048
56-09-56X0209	4	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	10	300	3,000	140	1,400	788
56-09-56X0247	14	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	50	300	15,000	140	7,002	3,939

Attachment 1 - Field Fumigant Allowance Requests and Reductions for the Ventura NAA, May-October 2009

DPR calculated the information highlighted. All other information provided by permittees.

Operator ID-Permit Number	Site Location ID	Commodity	Product Name	Registration Number	Fumigation Method	Treated Acres	Product Application Rate (lbs/ac)	Requested Product Amount (lbs)	VOC Emission Rate (lbs/acre)	VOC Emissions (lbs)	56.258% of Request
56-09-56X0247	18	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	18	300	5,400	140	2,521	1,418
56-09-56X0247	19	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	10	300	3,000	140	1,400	788
56-09-56X0250	1	Strawberries	TRI-CON 80/20	58266-1	1103	163	300	48,900	141	23,038	12,961
56-09-56X0256	3	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	10	300	3,000	140	1,400	788
56-09-56X0276	10	Strawberries	TERR-O-GAS 75	5785-40	1103	42	300	12,600	141	5,922	3,332
56-09-56X0276	12	Strawberries	TERR-O-GAS 75	5785-40	1103	45	300	13,500	141	6,345	3,570
56-09-56X0276	19	Strawberries	TERR-O-GAS 75	5785-40	1103	37	300	11,100	141	5,217	2,935
56-09-56X0276	21	Strawberries	TERR-O-GAS 75	5785-40	1103	75	300	22,500	141	10,575	5,949
56-09-56X0276	25	Strawberries	TERR-O-GAS 75	5785-40	1103	111	300	33,300	141	15,651	8,805
56-09-56X0276	28	Strawberries	TERR-O-GAS 75	5785-40	1103	80	300	24,000	141	11,280	6,346
56-09-56X0276	29	Strawberries	TERR-O-GAS 75	5785-40	1103	80	300	24,000	141	11,280	6,346
56-09-56X0276	30	Strawberries	TERR-O-GAS 75	5785-40	1103	57	300	17,100	141	8,037	4,521
56-09-56X0276	32	Strawberries	TERR-O-GAS 75	5785-40	1103	195	300	58,500	141	27,495	15,468
56-09-56X0276	33	Strawberries	TERR-O-GAS 75	5785-40	1103	90	300	27,000	141	12,690	7,139
56-09-56X0276	34	Strawberries	TERR-O-GAS 75	5785-40	1103	22	300	6,600	141	3,102	1,745
56-09-56X0276	35	Strawberries	TERR-O-GAS 75	5785-40	1103	120	300	36,000	141	16,920	9,519
56-09-56X0276	37	Strawberries	TERR-O-GAS 75	5785-40	1103	65	300	19,500	141	9,165	5,156
56-09-56X0280	3	Strawberries	PIC-BROM 25	8536-11	1103	170.5	300	51,150	141	24,041	13,525
56-09-56X0280	4	Strawberries	PIC-BROM 25	8536-11	1103	42	308	12,936	145	6,080	3,420
56-09-56X0286	1	Strawberries	MBC-33 SOIL FUMIGANT	8853-3	1103	10	300	3,000	140	1,400	788

Attachment 2 - Field Fumigant Emission Allowances for the Ventura NAA, May-October 2009

Operator ID-Permit Number	Requested Emissions (lbs)	**Field Fumigant Emission Allowance (lbs)**
56-09-27F022A	70,594	**39,715**
56-09-27X0288	63,538	**35,745**
56-09-3000917	42,366	**23,834**
56-09-33O5000	3,501	**1,970**
56-09-56C0052	1,411	**794**
56-09-56C0345	1,120	**630**
56-09-56C0346	6,535	**3,677**
56-09-56C0484	73,915	**41,583**
56-09-56C0511	4,481	**2,521**
56-09-56C0525	3,361	**1,891**
56-09-56C0527	7,960	**4,478**
56-09-56C0567	14,844	**8,351**
56-09-56C0599	62,318	**35,059**
56-09-56C0664	61,908	**34,828**
56-09-56C0678	13,164	**7,406**
56-09-56C0679	10,223	**5,751**
56-09-56C0710	32,430	**18,244**
56-09-56C0772	1,680	**945**
56-09-56C0791	3,455	**1,943**
56-09-56C0848	10,363	**5,830**
56-09-56C0853	17,484	**9,836**
56-09-56C0879	46,493	**26,156**
56-09-56C0918	2,521	**1,418**
56-09-56C0938	12,604	**7,090**
56-09-56C0947	8,502	**4,783**
56-09-56C0950	13,304	**7,484**
56-09-56C0975	4,481	**2,521**
56-09-56P1645	37,726	**21,224**
56-09-56P1661	5,640	**3,173**
56-09-56P1789	432,659	**243,404**
56-09-56P1883	8,319	**4,680**
56-09-56P1887	69,372	**39,027**
56-09-56P1888	3,081	**1,733**
56-09-56P1895	1,120	**630**
56-09-56P1927	3,641	**2,048**
56-09-56P1944	10,083	**5,672**
56-09-56P1955	165,816	**93,284**
56-09-56X0002	54,183	**30,482**
56-09-56X0003	8,719	**4,905**
56-09-56X0004	28,200	**15,865**
56-09-56X0007	73,101	**41,125**
56-09-56X0011	14,564	**8,193**
56-09-56X0020	34,968	**19,672**
56-09-56X0026	41,595	**23,400**
56-09-56X0031	3,081	**1,733**
56-09-56X0047	135,979	**76,499**
56-09-56X0048	134,373	**75,595**
56-09-56X0050	14,424	**8,115**
56-09-56X0052	21,286	**11,975**

Attachment 2 - Field Fumigant Emission Allowances for the Ventura NAA, May-October 2009

Operator ID-Permit Number	Requested Emissions (lbs)	**Field Fumigant Emission Allowance (lbs)**
56-09-56X0071	2,801	**1,576**
56-09-56X0073	76,176	**42,855**
56-09-56X0076	3,666	**2,062**
56-09-56X0082	84,249	**47,396**
56-09-56X0093	7,572	**4,260**
56-09-56X0183	27,439	**15,437**
56-09-56X0193	6,652	**3,742**
56-09-56X0195	21,286	**11,975**
56-09-56X0209	18,345	**10,321**
56-09-56X0247	10,923	**6,145**
56-09-56X0250	23,038	**12,961**
56-09-56X0256	1,400	**788**
56-09-56X0276	143,679	**80,831**
56-09-56X0280	30,120	**16,945**
56-09-56X0286	1,400	**788**